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From: Michael P. Straub, Esq.

Date: May 25, 2006

Number of Pages Including Cover: 25

MESSAGE: **FORMAL SUBMISSION OF:**

1) Transmittal (1 pg.);
2) Fee transmittal (1 pg.) (in duplicate);
3) Request for a One (1) Month Extension of Time (2 pgs.); and
4) Response and Interview Summary (6 pgs.)
5) Appendix 13 pages including cover sheet.

Attorney Docket No.: Verizon-10 (01-1503)
Appl. No.: 09/933,063
Applicant: William D. GOODMAN
Filed: August 20, 2001
Title: METHODS AND APPARATUS FOR EXTRAPOLATING PERSON AND DEVICE COUNTS
TC/A.U.: 2686
Examiner: Randy Peaches

CERTIFICATE OF FACSIMILE TRANSMISSION

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Michael P. Straub May 25, 2006

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Modified PTO/SB/21 (08-00)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	09/933,063
Filing Date	August 20, 2001
First Named Inventor	William D. GOODMAN
Group Art Unit	2686
Examiner Name	Randy Peaches
Total Number of Pages in This Submission	
Attorney Docket Number	Verizon-10 (01-1503)

ENCLOSURES *(check all that apply)*

- ☒ Fee Transmittal Form
  - ☐ Fee Attached
- ☒ Amendment / Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☒ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Assignment Papers *(for an Application)*
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s)_____
- ☐ After Allowance Communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to Group *(Appeal Notice, Brief, Reply Brief)*
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Postcard Receipt
- ☐ Other Enclosure(s) *(please identify below)*:

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Michael P. Straub (Reg. No. 36,941)
Signature	Michael P. Straub
Date	May 25, 2006

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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

FEE TRANSMITTAL for FY 2006

Effective 12/08/2004. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 120.00

Complete if Known	
Application Number	09/933,063
Filing Date	August 20, 2001
First Named Inventor	William D. GOODMAN
Examiner Name	Randy Peaches
Art Unit	2686
Attorney Docket No.	Verizon-10 (01-1503)

METHOD OF PAYMENT *(check all that apply)*

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number: 50-1049

Deposit Account Name: Straub & Pokotylo

The Commissioner is authorized to: *(check all that apply)*

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FEE CALCULATION

1. BASIC FILING, SEARCH & EXAMINATION FEES

Large Entity Fee ($)	Small Entity Fee ($)	Fee Description	Fee Paid
1000	500	Utility fee	
430	215	Design fee	
660	330	Plant fee	
1400	700	Reissue fee	
200	100	Provisional fee	

SUBTOTAL (1) ($) 00.00

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims		Fee from below		Fee Paid
Total Claims		-20** =		X =	
Independent Claims		- 3** =		X =	
Multiple Dependent				=	

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
1202	50	2202	25	Claims in excess of 20
1201	200	2201	100	Independent claims in excess of 3
1203	360	2203	180	Multiple dependent claim, if not paid
1204	200	2204	100	**Reissue independent claims over original patent
1205	50	2205	25	**Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($) 00.00

**or number previously paid, if greater, For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	120	2251	60	Extension for reply within first month	120.00
1252	450	2252	225	Extension for reply within second month	
1253	1,020	2253	510	Extension for reply within third month	
1254	1,590	2254	795	Extension for reply within fourth month	
1255	2,160	2255	1,080	Extension for reply within fifth month	
1401	500	2401	250	Notice of Appeal	
1402	500	2402	250	Filing a brief in support of an appeal	
1403	1,000	2403	500	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	500	2452	250	Petition to revive - unavoidable	
1453	1,500	2453	750	Petition to revive - unintentional	
1501	1,400	2501	700	Utility issue fee (or reissue)	
1502	800	2502	400	Design issue fee	
1503	1,100	2503	550	Plant issue fee	
				Petitions to the Commissioner – check fee sheet	
1807	50	1807	50	Processing fee under 37 CFR 1.17(c)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	790	2809	395	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	790	2810	395	For each additional invention to be examined (37 CFR 1.129(b))	
1801	790	2801	395	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

* Reduced by Basic Filing Fee Paid SUBTOTAL (3) ($) 120.00

SUBMITTED BY				(Complete *(if applicable)*)	
Name (Print/Type)	Michael P. Straub	Registration No. (Attorney/Agent)	36,941	Telephone	(732) 542-9070
Signature	Michael P. Straub			Date	May 25, 2006

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This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231.

THE UNITED STATES
PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Case: Verizon 10 [01-1503]

Serial No: 09/933,063

Applicant: William D. GOODMAN

Filed: August 20, 2001

Title: METHODS AND APPARATUS FOR EXTRAPOLATING PERSON AND DEVICE COUNTS

TC/A.U.: 2686

Examiner: Randy Peaches
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INTERIVEW DISCUSSION OUTLINE

Sir:

I. Introduction

This interview discussion outline is submitted to allow the Examiner to prepare for the April 20, 2006 interview scheduled for 1 pm.

I. Status of Claims

It appears that the Examiner has failed to consider claims 21-24. Applicant believes that these claims which were submitted in a previous amendment which the Examiner declined to enter prior to Appeal should have been entered now that the Examiner has decided to re-open prosecution rather than proceed with the Appeal.

Claims 21-24 state:

> Claim 21 The method of claim 1, wherein said step of estimating the number of people includes taking into consideration a portion of the people in the geographic region that are likely to be utilizing multiple wireless devices.
>
> Claim 22 The method of claim 1, wherein said step of estimating the number of people includes multiplying the number of active wireless devices which are cell phones by a factor based on the percentage of a population in the geographic region which will have active cell phones.
>
> Claim 23 The method of claim 22, wherein said step of estimating the number of people further includes multiplying the number of active wireless devices which are personal data assistants by a factor based on the percentage of a population in the geographic region which will have personal data assistants.
>
> Claim 24 The method of claim 1, further comprising generating a geographic region based person count and information report from the estimated number of people and information on the distribution of the estimated number of people within the geographic region of interest.

Applicant suggests that the Examiner consider the content of claim 21-24 of the Amendment that was submitted in response to the final office action prior to the Appeal so that they can be discussed. Applicants believe these claims should have been considered in the office action. If the Examiner manages to find some procedural reason why these claims are not part of the pending application Applicants want to make the Examiner aware that they intend to add them and make them part of the current case.

II. The Current Rejections

Claims 1-3, 13-17 and 20 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,487,413 B1 to Suojasto in view of Basson et al. (U.S. Patent Publication Number 2002/0146978). Claims 11 and 12 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Suojasto and Basson et al. in view of U.S. Patent No. 5,659,596 to Dunn. Claims 4-8 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Suojasto and Basson et al. in view of U.S. Patent No. 6,192,243 B1 to Yang et al. Claims 9-10 and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Suojasto and Basson et al. in view of U.S. Patent Number 6,535,745 B1 to Seraj. Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Suojasto, and Basson et al in view of Seraj and in further view of Yang et al.

The current rejections appear to be virtually identical to the previously appealed rejections with the exception that the Examiner now cites Basson et al. **Notably, with respect to many of the claims, Applicants arguments in the Appeal brief did not depend on the features the Examiner asserts can be found in the Basson et al. reference.** However, the Examiner has failed to address Applicant's previous arguments. Applicant's representative intends to repeat those arguments which remain relevant and hope that the Examiner is prepared to address them. Accordingly, **Applicant's representative suggests that the Examiner review the previously submitted Appeal Brief and be prepared to discuss the arguments raised therein during the interview that address the deficiencies of the secondary references used by the Examiner which the Examiner continues to rely on.**. Excerpts of the Appeal Brief which are among those portions the Examiner should consider are set forth at the end of thus Interview Outline.

Applicants note that while the Examiner cites an additional reference in rejecting the claims the Examiner fails to clearly identify what the combination he envisions would actually be technically. **Applicant's representative hopes the Examiner will be prepared to explain what change would be made and what combination he actually envisions resulting from the references with respect to individual claim elements and be willing to acknowledge portions of the rejection which are inconsistent with the system he thinks would now result from his new proposed combination.** It appears that the current rejections include some inconsistencies which seem to be the result of copying language from the previous rejection.

III. The Basson et al. Reference and the Rejections Based Thereon

Claims 1-3, 13-17 and 20 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,487,413 B1 to Suojasto in view of Basson et al..

Apparently, the Examiner intended an obviousness rejection as opposed to an anticipation rejection since the Examiner uses a combination of references to make the rejection.

The Examiner cites paragraph [0026] of Basson et al. in various places throughout the office action. This paragraph states:

> [0026] The example given here shows road 309 packed with cars that create a traffic jam. At the same time, the picture shows cars traveling freely along a road 310. This information later gets transmitted to car drivers and tells them what streets in the city have traffic jams and shows them alternate roads. This also can be used to transmit information about how many people are in a particular city or region. For example, it would be possible to determine the number of people that show up at a demonstration, sports event or other gathering. By using a cell phone that people carry **it is possible that the electronic transceivers chip can**

> **report how many people are located in one particular region.** (bold added)

Applicants respectfully submit that while a transceiver chip can be used to report how many people are located in a particular region, this does not teach disclose or suggest where or how the information on the number of people is generated. It does not teach that "devices" are "people". Transceivers can be used to report lots of things since they are communications devices but this does not tell you how that information was generated. The cited portion of the reference does not disclose the claimed subject matter. The Examiner must be relying on some other portion of the reference to reject the claims.

The reference is relatively short. Applicants' representative has carefully read the reference. The reference does not mention using "the number of active wireless devices in at least one communications cell" to estimate the number of people in a region.

Applicants suggest that the Examiner review paragraph [0031] of the reference which seems more pertinent in understanding the reference than the portion the Examiner choose to cite in rejecting claim 1.

> [0031] FIG. 6 is a flow chart showing a procedure to determine traffic jams and the density of the population during gatherings in certain areas. Block 600 sends the short range signal, which is received by another device 601. If this device is outside the tunnel, it will send a long range signal to a satellite that will determine its location. If this device was inside the tunnel, the block 602 will send the short distance signal labeled as the signal to determine the distance between the next user with cell phone or car with electronic transceiver. **This signal has the special purpose to determine the distance between the cars in the tunnel and this is how the signal is labeled. Block 603 counts how many cars received this signal.** When the special signal gets transmitted from one car to another, **distance and count is computed**; and once it reaches the car outside the tunnel, the signal is redirected by this car to the satellite as the total information. A satellite computer can compute the number of cars in the tunnel. It is also possible to have special devices on the streets that will read the information from

> the electronic device inside the car and transmit this information to a satellite. This will allow computing the number of cars in certain locations. **This also can be used for computing a density of people carrying or using cell phones.**

The reference relies on distance information, e.g., distance between users with transceivers and requires the measurement of distances with the distance information being sent with the count of devices receiving a short range signal. A count of devices receiving a short range signal, as described in the applied reference is not the number of devices in a cell. Furthermore, distance information is an important component in the Basson et al. reference. One reading the reference would conclude that information on the number of active devices without such distance information is insufficient for the determinations discussed in Basson et al. reference.

Applicants note that Basson et al. seems to include a cell tower 101 and is devoid of any mention of using the number of devices in a cell in making its determinations. Rather, it teaches away from such an approach and suggests using short range signals and distance determinations to make estimates.

It is submitted that a proper reading of the Basson et al. reference results in a conclusion that it teaches away from the claimed invention by teaching alternative methods which differ significantly from the claimed subject matter. Accordingly, all of the rejections should be withdrawn.

Appeal Brief Excerpts

Some of the Arguments from Previous Appeal Brief Which Are believed to Be Relevant. Such arguments include the following which have been copied from the Appeal Brief:

4. **The Rejection of Claims 9-10 (Group III) under 35 U.S.C. 103(a) For Obviousness Should be Overruled and/or Withdrawn**

For clarification purposes, claims 1-2 are included here as background to representative claim 9, as claim 9 depends from claims 1-2:

> Claim 1 - A method of processing active wireless device statistics, the method comprising:
> receiving statistics indicating the number of active wireless devices in at least one communications cell;
> estimating the number of people in a geographic region of interest from the number of active wireless devices indicated by the received statistics.
>
> Claim 2 - The method of claim 1, wherein receiving statistics includes:
> receiving information from a plurality of different communications cells, said information including at a first count corresponding to the number of active devices in a first communications cell and a second count corresponding to the number of active devices in a second communications cell.
>
> Claim 9 - The method of claim 2, wherein
> the first count is a count of a first type of wireless device and
> said second count is a count of a second type of wireless device which is different from said first type.

Because representative claim 9 of Group III is dependent on claim 1, all of the arguments above regarding claim 1 apply equally to claim 9. Additionally, however, claim 9 has the further limitation of stating that **the first count is a count of a first type of wireless device and said second count is a count of a second type of wireless device which is different from said first type**. This limitation further differentiates Applicant's

invention from the cited references and renders claim 9 patentably distinct from the claims of Groups I & II.

The Examiner claims at p. 11 of the Final Office Action that Seraj teaches the above limitation in column 4 lines 19-24. However the cited portion of the reference merely states:

> "With reference to FIG. 1, therein is shown a diagram of a wireless communications network 10. The network 10 includes a mobile station (MS) 12, which can be a wireless communications device such as a Personal Communications Service (PCS) or cellular phone, but may also include a computer, a Personal Digital Assistant (PDA), or other wireless terminal, for example."

Nowhere does Seraj teach or suggest **keeping separate counts** of devices based on their types.

The Examiner admits as much when he states at p. 11:

> "Although, the cited reference of Seraj does not clearly specify that the traffic information, which reads on claimed 'count', received from the first and second cells depends on the type of device within the cell, it is obvious that the method of estimating the traffic conditions of a cell takes into consideration the different type of devices being used within that given area and collectively, despite the type of device being used within the cell, gather the said traffic information."

Collective accounting teaches away from generating and transmitting multiple separate counts for different types of devices. There is no teaching in either Suojasto or Seraj to separately count devices of different types based on their type, as is claimed in representative claim 9. Therefore, this is a further reason that none of the cited references render claim 9 obvious, and therefore, claim Group III is patentable over the cited references and the rejection of claim Group III should be overruled.

5. The Rejection of Claims 11-12 (Group IV) under 35 U.S.C. 103(a) For Obviousness Should be Overruled and/or Withdrawn

> Claim 11 - A method of processing active wireless device statistics, the method comprising:

> receiving statistics on the number and type of active wireless devices in at least one communications cell;
>
> estimating the number of people in a geographic region of interest from the received statistics on the number of active wireless devices; and
>
> **predicting characteristics of the people in the geographic region of interest from the type and number of active wireless devices in the geographic region of interest.**

Because representative claim 11 of Group IV contains the same limitations of claim 1, all of the arguments above regarding claim 1 apply equally to claim 11. Additionally, however, claim 11 has the further limitation of predicting **characteristics of the people in the geographic region** of interest from the type and number of active wireless devices in the geographic region of interest. This limitation further differentiates Applicant's invention from the cited references and renders claim 11 patentably distinct from the claims of Groups I, II, & III.

As is stated in the specification of the present application at p. 16, lines 4-12:

> "Different types of people tend to use different types of devices. For example, business people are more likely to use notebook computers than the general population. Since different types of wireless devices may be used and tracked, insights into the characteristics of the people in a geographic region may be gained from correlating known user characteristics of particular types of devices with the active device information 507."

The Examiner refers on p. 7 of the Final Office Action to Dunn at column 9 lines 38-45:

> "Each LSO interacted with also receives and stores RSU device identification codes, such as the MIN and ESN, the current control channels which the RSU is operating under, the RSU device identification or specification codes **identifying the type of device being used and more importantly, the user identification code.** Thus, the instant invention provides offices which store both wireless and wireline devices and user data." (bold added)

However, nowhere in Dunn is there a teaching or suggestion, nor is such a teaching or suggestion alluded to by the Examiner, to **predict characteristics of the**

people in the geographic area. The Examiner acknowledges that the Suojasto patent fails to show this feature stating:

> "Suojasto fails to clearly disclose **wherein predicting characteristics of the devices** in the geographic region of interest from the type of devices in the geographic region of interest." (Office Action page 7, bold and underlining added)

Only characteristics of devices are discussed in Dunn or any of the other cited references. Further, Applicant respectfully submits that the Examiner has merely indicated that the Dunn patent describes providing device type information. In rejecting claim 11, the Examiner has not cited anything in Dunn which describes "**predicting characteristics of people**" **from the type of active wireless devices** which is the real issue. Applicant respectfully further submits that the user identification code mentioned in the Dunn patent is not a "type of device" and therefore cannot be used to support a rejection of claim 11.

Based on the above arguments, claim 11, and therefore claim Group IV, are patentable over the cited references.

6. The Rejection of Claims 14-16 (Group V) under 35 U.S.C. 102(e) For Anticipation Should be Overruled and/or Withdrawn

> Claim 14 - A method comprising:
> collecting active wireless device statistics from a communications cell **over a period of time**; and
> **detecting changes in the collected active wireless device statistics**; and
> generating a report including **estimating the flow of people through said geographic area based on detected changes in the collected active wireless device statistics**.

Because representative claim 14 of Group V contains the limitations of claim 1, all of the arguments above regarding claim 1 apply equally to claim 14. Additionally, however, claim 14 has the further limitations of collecting the device data over a period of time, detecting changes in the device statistics, and estimating the flow of people

through the geographic area based on the changes in the statistics. These limitations further differentiate Applicant's invention from the cited references and render claim 14 patentably distinct from the claims of Groups I, II, III, & IV.

In rejecting claim 14 the Examiner states:

> ... Suojasto teaches ... generating a report, as disclosed in column 4 lines 30-35, **that disclose the traffic capacity** based on the said active and passive mobile stations collected statistics. (Office Action page 4, bold added for emphasis)

The Examiner relies on column 4, lines 30-35 of the Suojasto patent, which refers to **communications traffic capacity** to reject the claim. This portion of the Suojasto patent states:

> ... The most significant advantage of the method of the invention is thus that it gives a more accurate picture of the **number of phones** located in the predetermined geographical area of interest, whereby potential bottlenecks concerning **the capacity of the system** can be found more easily than previously ...[emphasis added]

Claim 14 is patentable because it recites:

> A method comprising:
> collecting active wireless device statistics from a communications cell over a period of time; and
> detecting changes in the collected active wireless device statistics; and
> **generating a report including estimating the *flow of people through said geographic area* based on detected changes in the collected active wireless device statistics.**

As discussed above, the Suojasto patent does not mention "people", let alone a **report generation step which includes estimating the flow of people in a geographic region**. The capacity and potential bottlenecks discussed in the cited portion of the application are system (communications) capacity issues and do **NOT** involve estimating the flow of **people**. Accordingly claim 14 is clearly patentable over the Suojasto patent. The other references cited by the Examiner do not talk about, refer to, or imply reports about the flow of people. Accordingly, the references

applied by the Examiner, when taken alone or in combination, in no way anticipate or render obvious claim 14, and therefore claim Group V is patentable over the cited references.